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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/723,510 | 11/26/2003 | Chetan P. Jariwala | 59369US002 | 9001 |
| 32692 | 7590 | 12/15/2005 | EXAMINER | |
| 3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427 | | | SASTRI, SATYA B | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1713 | |

DATE MAILED: 12/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/723,510

Applicant(s)

JARIWALA ET AL.

Examiner

Satya B. Sastri

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>7/26/04, 4/18/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to application filed on November 26, 2003. *Claims 1-26* are now pending in the application.

Claim Objections

2. *Claim 1* is objected for the following minor informalities:
 - R1 in the formula in line 3 for the fluorochemical oligomeric compound must be replaced by R₁.
 - In line 6, “an number” must be replaced by “a number”.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. *Claims 1-26* are rejected under 35 U.S.C. 103(a) as being unpatentable over Dams et al. (US 5,276,175).

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Prior art to Dams et al. concerns fluorochemical compositions comprising fluorinated compounds comprising fluorochemical oligomeric portion and useful for application on fibrous substrates to impart water repellency (abstract). The fluorinated compounds may have formula I or II, represented by $(A-Z)_nR$ or $A(Z-R)_n$ respectively, wherein A is a fluorochemical oligomeric portion of the following formula:

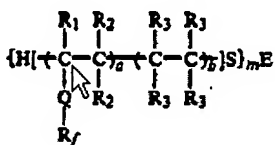


I



II

wherein A is a fluorochemical oligomeric portion of the formula



and wherein

n is a whole number (e.g., from 1 to about 10);

m is an integer from 1 to about 5;

a and b are integers such that A is oligomeric and comprises a plurality of R_f groups;

R_1 is hydrogen, halogen, or straight chain or branched chain alkyl containing 1 to about 4 carbon atoms; each R_2 is independently hydrogen or straight chain or branched chain alkyl containing 1 to about 4 carbon atoms;

Q is an organic linking group, such as a sulfonamidoalkylene group;

R_f is a fluoroaliphatic group, such as $-(CF_2)_7CF_3$, that comprises a fully fluorinated terminal group;

each R_3 is independently hydrogen, halogen, or an organic group, such as a carboxyl group or an alkyl carboxylate group;

E is an organic group, such as $-CH_2CH_2-$;

each z independently comprises a non-polymeric isocyanate-derived linking group (such as urethane-ylene);

The molar ratio of the fluorochemical monomer to the non-fluorinated monomer may range from 20:1 to 1:4 and the fully fluorinated terminal portion preferably contains at least 7 fluorine atoms

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(column 8, lines 55-60, 20-27). Q may include a variety of linking groups as given in column 12.

The dispersions usually contain water, fluorinated compound and an emulsifier to stabilize the invention (column 23, lines 52-65). Additionally, the compositions may include polymers and copolymers of acrylates, methacrylates, maleic anhydride, olefins etc. (column 24, lines 55-60).

The schematic for the preparation of the oligomeric fluorochemical compound is disclosed in scheme 1.

The difference between the instant invention and the prior art is that the prior art does not disclose the specific inclusion of antisoiling compound in the composition.

The prior art does disclose as additives, several compounds that can also serve as antisoiling compound. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include any of the disclosed additives including the instantly claimed antisoiling compound in the compositions of Dams et al. and thereby obtain the instant invention.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Satya Sastri at (571) 272 1112.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached at (571) 272 1114.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273 8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



SATYA SASTRI

September 23, 2005



LING-SUI CHOI
PRIMARY EXAMINER